May 28, 2003

RE:Haynes International, Inc. #067-17254-00009
TO: Interested Parties / Applicant
FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision - Approval

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to 326 IAC 2, this approval was effective immediately upon submittal of the application.

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office Environmental Adjudication, ISTA Building, 150 W. Market Street, Suite 618, Indianapolis, IN 46204, **within eighteen (18) calendar days from the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

(1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
(2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
(3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

(1) the name and address of the person making the request;
(2) the interest of the person making the request;
(3) identification of any persons represented by the person making the request;
(4) the reasons, with particularity, for the request;
(5) the issues, with particularity, proposed for considerations at any hearing; and
(6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures

May 28, 2003

Mr. August A. Cijan
Haynes International Inc.
2000 West Deffenbaugh Street
Kokomo, Indiana 46904

Re: 067-17254
Fourth Administrative Amendment to
Part 70 067-7729-00009

Dear Mr. Cijan:

Haynes International Inc. was issued a permit on June 24, 1999 for a stationary rolling, drawing, and extruding of nonferrous metal foundry operation that produces nonferrous metal alloys. A letter requesting a revision to the pH levels as listed in the Part 70 Operating Permit Section D.3.7(a) was received on March 19, 2003. Additional information was received on May 15, 2003. Pursuant to the provisions of 2-7-11 the permit is hereby administratively amended as follows:

Haynes International Inc., located at 2000 West Deffenbaugh Street, Kokomo, Indiana, has requested the pH level for Fume Scrubber, FS-1 and FS-2, as listed in Section D.3.7(a) of the Part 70 Operating Permit 067-7729-00009 be revised. Haynes International Inc. verifies based on the last stack testing performed on February 4 and 5, 2003 the pH level of 7 was established for this process. Per the language of D.3.7(a), Haynes International Inc. request that the pH level be revised to eliminate a potential conflict between the last stack test establishment and the pH level indicated in the Part 70 Operating Permit. The pH level to be removed will be indicated with strikeout (~~strikeout~~), and new pH level will be indicated with bold (**bold**) type:

D.3.7 Scrubber Monitoring

(a) The Permittee shall monitor and record the pH and flow rate of the scrubber, at least once daily when the units are in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pH and flow rate across each of the scrubbers shall be maintained within the range specified below or a range established during the latest stack test. The Compliance Response Plan for the scrubber shall contain troubleshooting contingency and response steps for when the acid content and flow rate readings are outside of the following ranges for any one reading:

Scrubber	Flow rate	pH
FS-1	150 gallons per minute	above ~~10~~**7**
FS-2	75 gallons per minute	above ~~10~~**7**

Additional information requesting a modification to upgrade the existing control equipment identified as unit Rotoblast (DC-10) is being added to this amendment. The modifications to the control equipment and changes in potential to emit are reflected in the Part 70 Operating Permit Appendix A pages 1 and 2. See the attached appendix pages for changes. All deleted changes are indicated with strikeout (~~strikeout~~) and new changes are indicated with bold (**bold**) type. Design changes are as follows:

Item	Previous Design	New Design
Fabric Material	~~Cotton~~	***Cellulose***
Total Filter Area, FT^2	~~5005~~	***7700***
Air to Cloth Ratio	~~2.7:1~~	***1.68:1***
Bag Cleaning	~~Shaking~~	***Jetpulse***

The design change will amend the Limited Potential to Emit. The new design shall not change any required Part 70 Operating Permit 067-7729-00009 conditions. Please see the revised emissions calculations Appendix A pages 1 and 2 of 3. Appendix A pages 1 and 2 of 3 show the previous calculations with old calculation indicated with strikeout and new calculations indicated with bold type.

Limited Potential to Emit

The table below summarizes the total limited potential to emit of the significant emission units.

	Uncontrolled Potential to Emit (tons/year)						
Process/ facility	PM	PM-10	SO_2/CO	VOC	NO_X	Single HAPs	Total HAPs
~~Rotoblast (DC-10)~~	~~1,014.67~~	~~872.62~~	~~--~~	~~--~~	~~--~~	~~761.00~~	~~892.91~~
Rotoblast (DC-10)	**982.87**	**845.27**	--	--	--	**737.15**	**864.93**

	Limited / Controlled Potential to Emit (tons/year)						
Process/ facility	PM	PM-10	SO_2/CO	VOC	NO_X	Single HAPs	Total HAPs
~~Rotoblast (DC-10)~~	~~10.15~~	~~8.73~~	~~--~~	~~--~~	~~--~~	~~--~~	~~8.93~~
Rotoblast (DC-10)	**9.83**	**8.45**	--	--	--	**7.37**	**8.65**

All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this amendment and the following revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact James Farrell, at (800) 451-6027, press 0 and ask for James Farrell or extension 3-8396, or dial (317) 233-8396.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments
JF
cc: File - Howard County
U.S. EPA, Region V
Howard County Health Department
Air Compliance Section Inspector - Marc Goldman
Compliance Data Section - Karen Ampil
Administrative and Development - Delisa Lee
Technical Support and Modeling - Michele Boner

PART 70 OPERATING PERMIT
and ENHANCED NEW SOURCE REVIEW
OFFICE OF AIR QUALITY

Haynes International Inc.
2000 West Deffenbaugh Street
Kokomo, Indiana 46904

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 and 326 IAC 2-1-3.2 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T067-7729-00009	
Issued by: Felicia R. George, Assistant Commissioner Office of Air Quality	Issuance Date: June 24, 1999

First Administrative Amendment: 067-11021, issued on July 22, 1999
Second Administrative Amendment: 067-14464, issued on June 22, 2001
Third Administrative Amendment: 067-17273, issued on March 17, 2003

Fourth Administrative Amendment: 067-17254	Page Affected: 39
Issued by: Original signed by Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: May 28, 2003

determine if the facility is in compliance.

(b) During the period between 12 and 36 months from the date of issue of this permit, the Permittee shall conduct a one (1) time compliance performance test on the R1 acid batch and R35 strip pickling lines to determine compliance with Condition D.3.1, and to establish proper operating parameters for optimal control efficiency of particulate matter (PM) by the fume scrubbers (FS-1 and FS-2), utilizing Methods 5 or 17 (40 CFR 60, Appendix A), or other methods as approved by the Commissioner. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

D.3.5 Scrubber Operating Condition

That the fume scrubbers identified as FS-1 and FS-2 shall be operated at all times when the R1 batch pickling and R35 strip pickling units are in operation, respectively.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.3.6 Visible Emissions Notations

(a) Daily visible emission notations of the stack exhaust from each facility shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

D.3.7 Scrubber Monitoring

(a) The Permittee shall monitor and record the pH and flow rate of the scrubber, at least once daily when the units are in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pH and flow rate across each of the scrubbers shall be maintained within the range specified below or a range established during the latest stack test. The Compliance Response Plan for the scrubber shall contain troubleshooting contingency and response steps for when the acid content and flow rate readings are outside of the following ranges for any one reading:

Scrubber	Flow rate	pH
FS-1	150 gallons per minute	above 7
FS-2	75 gallons per minute	above 7

Appendix A: Process Particulate Emissions

Company N Haynes, International, Inc.
Address Cit 2000 West Deffenbaugh Street, Kokomo, IN 46904
TV Amend: T067-17254-00009
Reviewer: JM/EVP Revised By: James Farrell
Date: August 18, 1998 Revised: May 16, 2003

Potential Emissions (tons/

Baghouses

Process	Dust Collector ID	No. of Ur	acfm	Gas Temp F	Grain Loading Actual Cubic of Outlet Air	Air to Cloth Rati Flow (acfm/ft²)	Total Filter A (ft²)	Control Efficiency	Potential PM Emissions (tons Uncontrolled	Potential PM Emissions (tons Controlled	dscfm	grains/ dscf	Allowable PM Emissions (lb/hr (326 IAC 6-1-2)	Allowable PM Emissions (tons (326 IAC 6-1-2)	In Compliance v 326 IAC 6-1-2
AOD Vessel	DC-14	1	70,000	250	0.00520	3.7	19,176	99.00%	1366.41	13.66	41,645	0.009	10.71	46.90	(will comply)
ESR Furnaces	DC-18	1	27,500	95	0.02000	5.6	4,945	99.00%	2064.42	20.64	20,930	0.026	5.38	23.57	(will comply)
EAF Furnace	DC-22	1	68,900	250	0.02000	2.5	27,650	99.00%	5169.54	51.70	40,991	0.034	10.54	46.17	(will not comply)
Sawing and Grinding	DC-8	1	15,000	68	0.02000	2.0	7,475	99.00%	1122.53	11.23	12,000	0.025	3.09	13.52	(will comply)
Sawing and Grinding	DC-9	1	15,000	68	0.02000	3.0	5,005	99.00%	1127.41	11.27	12,000	0.025	3.09	13.52	(will comply)
Rotoblast	DC-10	1	13,000	68	0.02000	1.7	7,700	99.00%	982.87	9.83	10,400	0.025	2.67	11.71	(will comply)
Blast Room	DC-12	1	11,650	68	0.02000	2.3	5,005	99.00%	875.62	8.76	9,320	0.025	2.40	10.50	(will comply)
Abrasive cutting	DC-13	1	7,410	68	0.02000	3.0	2,470	99.00%	556.39	5.56	5,928	0.025	1.52	6.68	(will comply)
Abrasive cutting	DC-31	1	17,500	68	0.02000	6.6	2,653	99.00%	1314.74	13.15	14,000	0.025	3.60	15.77	(will comply)
CMI Abrasive billet grin	DC-32	1	17,500	68	0.02000	6.6	2,653	99.00%	1314.74	13.15	14,000	0.025	3.60	15.77	(will comply)
Rotoblast	DC-36	1	11,800	68	0.02000	1.6	7,200	99.00%	886.61	8.87	9,440	0.025	2.43	10.63	(will comply)
Grind 1- Trackbound gr	DC-1	1	16,500	68	0.02000	6.2	2,653	99.00%	1239.04	12.39	13,200	0.025	3.39	14.87	(will comply)
Grind 1- Trackbound gr	DC-3	1	17,500	68	0.01000	6.6	2,653	99.00%	657.37	6.57	14,000	0.013	3.60	15.77	(will comply)
Grind 1- Trackbound gr	DC-4	1	17,500	68	0.01000	6.6	2,653	99.00%	657.37	6.57	14,000	0.013	3.60	15.77	(will comply)
Grind 2-Trackbound gri	DC-23C	1	11,400	68	0.02000	4.3	2,653	99.00%	856.57	8.57	9,120	0.025	2.35	10.27	(will comply)
Grind 2-Stationary end	DC-23B	1	16,900	68	0.02000	6.4	2,653	99.00%	1268.92	12.69	13,520	0.025	3.48	15.23	(will comply)
Saw 1-Fox cut off saw	DC-2	1	7,500	68	0.02000	8.3	902	99.00%	562.81	5.63	6,000	0.025	1.54	6.76	(will comply)
Saw 1-Swing frame sav	DC-5	1	17,500	68	0.01000	6.6	2,653	99.00%	657.37	6.57	14,000	0.013	3.60	15.77	(will comply)
Saw 1-Swing frame sav	DC-23A	1	16,900	68	0.02000	6.4	2,653	99.00%	1268.92	12.69	13,520	0.025	3.48	15.23	(will comply)
CMI abrasive billet grin	DC-37	1	17,500	68	0.02000	6.6	2,653	99.00%	1314.74	13.15	14,000	0.025	3.60	15.77	(will comply)
Total Emissions Based on Rated Capacity at 8,760 Hours/Year									**25264.38**	**252.64**				**340.15**	

The applicant will conduct a performance test on the EAF furnace for PM to determine compliance with 326 IAC 6-1-2.

Methodology:

Potential (uncontrolled):
Baghouse (tons/yr) = No. Units * Loading (grains/acf) * Air/Cloth Ratio (acfm/ft²) * Filter Area (ft²) * 1 lb/7,000 grains * 60 min/hr * 8760 hr/yr * 1 ton/2,000 lbs * 1/(1-Control Efficiency)

Potential (controlled):
Baghouse (tons/yr) = No. Units * Loading (grains/acf) * Air/Cloth Ratio (acfm/ft²) * Filter Area (ft²) * 1 lb/7,000 grains * 60 min/hr * 8760 hr/yr * 1 ton/2,000 lbs

Compliance with 326 IAC 6-1-2

The following calculations determine compliance with 326 IAC 6-1-2 (for counties listed in 326 IAC 6-1-7) to 0.03 grains/dscf of outlet air.
A sample calculation is given below of unit AOD:

13.66 ton/yr * 2000 lb/ton * 7000 gr/lb = 0.009 gr/dscf (will comply)
525,600 min/yr * 41,645 dscf/min

Allowable 46.90 tons per year, or 10.71 lbs/hr.

Note:
SCFM = 70,000 acfm * (460 + 68) * (1.0 - 0.2) / (460 + 250)
= 41,645 scfm

Assumes exhaust gas temperature of 250F, exhaust gas moisture content of 20% and exhaust gas flow of 70,000 acfm.

Appendix A: Process Particulate Emissions

Company N Haynes, International, Inc.
Address Cit 2000 West Deffenbaugh Street, Kokomo, IN 46904
Title V: T067-7729-00009
Reviewer: JM/EVP Revised By: J Farrell
Date: August 18, 1998 Revised: May 16, 2003

Potential Emissions (tons/

Baghouses

Process	Dust Collector ID	No. of Ur	acfm	Gas Temp F	Grain Loading Actual Cubic of Outlet Air	Air to Cloth Rati Flow (acfm/ft²)	Total Filter A (ft²)	Control Efficiency	Potential PM Emissions (tons Uncontrolled	Potential PM Emissions (tons Controlled	dscfm	grains/ dscf	Allowable PM Emissions (lb/hr (326 IAC 6-1-2)	Allowable PM Emissions (tons/ (326 IAC 6-1-2)	In Compliance w 326 IAC 6-1-2
AOD Vessel	DC-14	1	70,000	250	0.00520	3.7	19,176	99.00%	1366.41	13.66	41,645	0.009	10.71	46.90	(will comply)
ESR Furnaces	DC-18	1	27,500	95	0.02000	5.6	4,945	99.00%	2064.42	20.64	20,930	0.026	5.38	23.57	(will comply)
EAF Furnace	DC-22	1	68,900	250	0.02000	2.5	27,650	99.00%	5169.54	51.70	40,991	0.034	10.54	46.17	(will not comply)
Sawing and Grinding	DC-8	1	15,000	68	0.02000	2.0	7,475	99.00%	1122.53	11.23	12,000	0.025	3.09	13.52	(will comply)
Sawing and Grinding	DC-9	1	15,000	68	0.02000	3.0	5,005	99.00%	1127.41	11.27	12,000	0.025	3.09	13.52	(will comply)
~~Rotoblast~~	~~DC-10~~	~~1~~	~~13,500~~	~~68~~	~~0.02000~~	~~2.7~~	~~5,005~~	~~99.00%~~	~~1014.67~~	~~10.15~~	~~10,800~~	~~0.025~~	~~2.78~~	~~12.16~~	~~(will comply)~~
Rotoblast	DC-10	1	***13,000***	68	0.02000	***1.7***	***7,700***	99.00%	***982.87***	***9.83***	***10,400***	0.025	***2.67***	***11.71***	(will comply)
Blast Room	DC-12	1	11,650	68	0.02000	2.3	5,005	99.00%	875.62	8.76	9,320	0.025	2.40	10.50	(will comply)
Abrasive cutting	DC-13	1	7,410	68	0.02000	3.0	2,470	99.00%	556.39	5.56	5,928	0.025	1.52	6.68	(will comply)
Abrasive cutting	DC-31	1	17,500	68	0.02000	6.6	2,653	99.00%	1314.74	13.15	14,000	0.025	3.60	15.77	(will comply)
CMI Abrasive billet grin	DC-32	1	17,500	68	0.02000	6.6	2,653	99.00%	1314.74	13.15	14,000	0.025	3.60	15.77	(will comply)
Rotoblast	DC-36	1	11,800	68	0.02000	1.6	7,200	99.00%	886.61	8.87	9,440	0.025	2.43	10.63	(will comply)
Grind 1- Trackbound gr	DC-1	1	16,500	68	0.02000	6.2	2,653	99.00%	1239.04	12.39	13,200	0.025	3.39	14.87	(will comply)
Grind 1- Trackbound gr	DC-3	1	17,500	68	0.01000	6.6	2,653	99.00%	657.37	6.57	14,000	0.013	3.60	15.77	(will comply)
Grind 1- Trackbound gr	DC-4	1	17,500	68	0.01000	6.6	2,653	99.00%	657.37	6.57	14,000	0.013	3.60	15.77	(will comply)
Grind 2-Trackbound gri	DC-23C	1	11,400	68	0.02000	4.3	2,653	99.00%	856.57	8.57	9,120	0.025	2.35	10.27	(will comply)
Grind 2-Stationary end	DC-23B	1	16,900	68	0.02000	6.4	2,653	99.00%	1268.92	12.69	13,520	0.025	3.48	15.23	(will comply)
Saw 1-Fox cut off saw	DC-2	1	7,500	68	0.02000	8.3	902	99.00%	562.81	5.63	6,000	0.025	1.54	6.76	(will comply)
Saw 1-Swing frame sav	DC-5	1	17,500	68	0.01000	6.6	2,653	99.00%	657.37	6.57	14,000	0.013	3.60	15.77	(will comply)
Saw 1-Swing frame sav	DC-23A	1	16,900	68	0.02000	6.4	2,653	99.00%	1268.92	12.69	13,520	0.025	3.48	15.23	(will comply)
CMI abrasive billet grin	DC-37	1	17,500	68	0.02000	6.6	2,653	99.00%	1314.74	13.15	14,000	0.025	3.60	15.77	(will comply)
~~Total Emissions Based on Rated Capacity at 8,760 Hours/Year~~									~~25296.18~~	~~252.96~~				~~340.60~~	
Total Emissions Based on Rated Capacity at 8,760 Hours/Year									***25264.38***	***252.64***				***340.15***	

The applicant will conduct a performance test on the EAF furnace for PM to determine compliance with 326 IAC 6-1-2.

Methodology:

Potential (uncontrolled):

Baghouse (tons/yr) = No. Units * Loading (grains/acf) * Air/Cloth Ratio (acfm/ft²) * Filter Area (ft²) * 1 lb/7,000 grains * 60 min/hr * 8760 hr/yr * 1 ton/2,000 lbs * 1/(1-Control Efficiency)

Potential (controlled):

Baghouse (tons/yr) = No. Units * Loading (grains/acf) * Air/Cloth Ratio (acfm/ft²) * Filter Area (ft²) * 1 lb/7,000 grains * 60 min/hr * 8760 hr/yr * 1 ton/2,000 lbs

Compliance with 326 IAC 6-1-2

The following calculations determine compliance with 326 IAC 6-1-2 (for counties listed in 326 IAC 6-1-7) to 0.03 grains/dscf of outlet air.
A sample calculation is given below of unit AOD:

13.66 ton/yr * 2000 lb/ton * 7000 gr/lb = 0.009 gr/dscf (will comply)
525,600 min/yr * 41,645 dscf/min

Allowable 46.90 tons per year, or 10.71 lbs/hr.

Note:

SCFM = 70,000 acfm * (460 + 68) * (1.0 - 0.2) / (460 + 250)
= 41,645 scfm

Assumes exhaust gas temperature of 250F, exhaust gas moisture content of 20% and exhaust gas flow of 70,000 acfm.

Appendix A: Emission Calculations

Company Name: Haynes, International, Inc.
Address City IN: 2000 West Deffenbaugh Street, Kokomo, IN 46904
Title V: T067-7729-00009
Reviewer: JM/EVP Revised By: James Farrell
Date: August 18, 1998 Revised: May 16, 2003

Uncontrolled Potential Emissions (tons/year)

	PM	PM-10	SO2	NOx	VOC	CO	Single HAP*	Total HAPs*
AOD Vessel (DC-14)	1,366.41	1,366.41	--	--	--	--	1,024.81	1,202.44
ESR Furnaces (DC-18) (a	2,064.42	2,064.42	0.00	36.22	0.10	--	1,548.32	1,816.69
EAF Furnace (DC-22) (b)	5,169.54	5,169.54	5.26	7.01	3.94	--	3,877.16	4,549.20
Grind/Saw (DC-8)	1,122.53	112.25	--	--	--	--	841.90	987.83
Grind/Saw (DC-9)	1,127.41	112.74	--	--	--	--	845.56	992.12
Rotoblast (DC-10)	982.87	845.27	--	--	--	--	737.15	864.93
Blast Room (DC-12)	875.62	753.03	--	--	--	--	656.72	770.55
Sawing (DC-13)	556.39	55.64	--	--	--	--	417.29	489.62
Sawing (DC-31)	1,314.74	131.47	--	--	--	--	986.06	1,156.97
Grinder (DC-32)	1,314.74	131.47	--	--	--	--	986.06	1,156.97
Rotoblast (DC-36)	886.61	762.48	--	--	--	--	664.96	780.22
Grind 1 (DC-1, DC-3, DC-4	2,553.78	255.38	--	--	--	--	1,915.34	2,247.33
Grind 2 (DC-23C, DC-23B	2,125.49	212.55	--	--	--	--	1,594.12	1,870.43
Saw 1 (DC-2, DC-5, DC-23	2,489.10	248.91	--	--	--	--	1,866.83	2,190.41
CMI Grinder (DC-37)	1,314.74	131.47	--	--	--	--	986.06	1,156.97
Fume Scrubber (FS-1) (c)	--	--	--	--	--	--	2.15	3.54
Fume Scrubber (FS-2) (c)	--	--	--	--	--	--	--	--
Natural gas combustion	12.16	12.16	0.96	159.99	8.80	134.39	--	--
Insignificant Activities (d)	3.50	3.50	--	--	2.50	--	--	--
TOTAL Uncontrolled PE	**25,280.05**	**12,368.71**	**6.22**	**203.22**	**15.34**	**134.39**	**18,950.44**	**22,236.20**

(a) Potential NOx and VOC emissions were provided by the applicant and calculated using AIRS.
The emission factors of 1.5 lb NOx/ton throughput and 0.004 lb VOC/ton throughput were used.
(b) Potential SO2, NOx, and VOC emissions were provided by the applicant and calculated using Fire 5.0.
The emission factors of 0.24 lbs SO2/ton, 0.32 lbs NOx/ton, and 0.18 lbs VOC/ton of throughput were used.
(c) There was no data available on the fume scrubbers controlling the R1 and R35 pickling operations. The applicant will perform stack
The potential to emit NOx from both the R1 and R35 pickling operations shall each not exceed 40 tons per year to avoid 326 IAC 2-2 (PSD).
(d) Includes estimated potential emissions from the insignificant degreasing operations and the insignificant R-24 weigh room controlled by DC-33.
* Single HAP emissions from the melting and machining operations listed above were calculated using a worst case 75% Nickel PM fraction in Alloy 214.
* Total HAP emissions were calculated using a worst-case 88% Cobalt/Chromium PM fraction in Alloy 6B.
The PM10 emissions from the sawing/cutting/and grinding operations were calculated using a 0.1 lb PM10 / lb PM ratio pursuant to Fi
The PM from the AOD, ESR, and EAF furnaces is considered all PM10 since there is no emission factor ratio available.
The PM10 emissions from the blasting ops (DC-10,DC-12, and DC-36) were calculated using a 0.86 lb PM10/ lb PM ration pursuant to

Limited/Controlled Potential to Emit (tons/year)

	PM	PM-10	SO2	NOx	VOC	CO	Single HAP	Total HAPs
AOD Vessel (DC-14)	13.66	13.66	--	--	--	--	10.25	12.02
ESR Furnaces (DC-18) (a	20.64	20.64	0.00	36.22	0.10	--	15.48	18.16
EAF Furnace (DC-22) (b)	46.17	46.17	5.26	7.01	3.94	--	34.63	40.63
Grind/Saw (DC-8)	11.23	1.12	--	--	--	--	8.42	9.88
Grind/Saw (DC-9)	11.27	1.13	--	--	--	--	8.45	9.92
Rotoblast (DC-10)	9.83	8.45	--	--	--	--	7.37	8.65
Blast Room (DC-12)	8.76	7.53	--	--	--	--	6.57	7.71
Sawing (DC-13)	5.56	0.56	--	--	--	--	4.17	4.89
Sawing (DC-31)	13.15	1.32	--	--	--	--	9.86	11.57
Grinder (DC-32)	13.15	1.32	--	--	--	--	9.86	11.57
Rotoblast (DC-36)	8.87	7.63	--	--	--	--	6.65	7.81
Grind 1 (DC-1, DC-3, DC-4	25.53	2.55	--	--	--	--	19.15	22.47
Grind 2 (DC-23C, DC-23B	21.26	2.13	--	--	--	--	15.95	18.71
Saw 1 (DC-2, DC-5, DC-23	24.89	2.49	--	--	--	--	18.67	21.90
CMI Grinder (DC-37)	13.15	1.32	--	--	--	--	9.86	11.57
Fume Scrubber (FS-1)	--	--	--	39.00	--	--	0.32	0.36
Fume Scrubber (FS-2)	--	--	--	39.00	--	--	--	--
Natural gas combustion	11.46	11.46	0.90	150.81	8.29	126.68	--	--
Insignificant Activities (d)	0.03	0.03	--	--	2.50	--	--	--
TOTAL Controlled PTE	**258.61**	**129.49**	**6.16**	**272.04**	**14.83**	**126.68**	**185.66**	**217.83**

See Appendix A, pages 2-3 for detailed emissions calculations of the units listed above.